

## AMENDMENTS TO THE SPECIFICATION:

Please amend the fourth paragraph on page 4 as follows:

-- Suitable cycloalkyl groups include cyclopropyl, cyclobutyl, cyclohexyl, etc. The term "cycloalkyl", as used herein, refers to cyclic structures with or without alkyl substituents such that, for example, "C<sub>4</sub> cycloalkyl" includes methyl substituted cyclopropyl groups as well as cyclobutyl groups. The term "cycloalkyl" also includes saturated heterocycles.--

Please amend the sixth paragraph on page 4 as follows:

--As indicated above, these ring systems can be unsubstituted or substituted by substituents such as halogen up to per-halosubstitution. Other suitable substituents for the moieties of B include alkyl, alkoxy, carboxy, cycloalkyl, aryl, heteroaryl, cyano, hydroxy and amine. These other substituents, generally referred to as X and X' herein, include -CN, -CO<sub>2</sub>R<sup>5</sup>, -C(O)NR<sup>5</sup>R<sup>5'</sup>, -C(O)R<sup>5</sup>, -NO<sub>2</sub>, -OR<sup>5</sup>, -SR<sup>5</sup>, -NR<sup>5</sup>R<sup>5'</sup>, -NR<sup>5</sup>C(O)OR<sup>5'</sup>, -NR<sup>5</sup>C(O)R<sup>5'</sup>, C<sub>1</sub>-C<sub>10</sub> alkyl, C<sub>2-10</sub>-alkenyl, C<sub>1-10</sub>-alkoxy, C<sub>3</sub>-C<sub>10</sub> cycloalkyl, C<sub>6</sub>-C<sub>14</sub> aryl, C<sub>7</sub>-C<sub>24</sub> alkaryl, C<sub>3</sub>-C<sub>13</sub> heteroaryl, C<sub>4</sub>-C<sub>23</sub> alkheteroaryl, substituted C<sub>1</sub>-C<sub>10</sub> alkyl, substituted C<sub>2-10</sub>-alkenyl, substituted C<sub>2-10</sub>-alkoxy, substituted C<sub>3</sub>-C<sub>10</sub> cycloalkyl, substituted C<sub>4</sub>-C<sub>23</sub> alkheteroaryl and -M-L<sup>1</sup>.--

Please amend the first, second, third and fourth paragraphs on page 5 as follows:

--The moieties R<sup>5</sup> and R<sup>5'</sup> are preferably independently selected from H, C<sub>1</sub>-C<sub>10</sub> alkyl, C<sub>2-10</sub>-alkenyl, C<sub>3-10</sub>-cycloalkyl, C<sub>6</sub>-C<sub>14</sub> aryl, C<sub>3</sub>-C<sub>13</sub> heteroaryl, C<sub>7</sub>-C<sub>24</sub> alkaryl, C<sub>4</sub>-C<sub>23</sub> alkheteroaryl, up to per-halosubstituted C<sub>1</sub>-C<sub>10</sub> alkyl, up to per-halosubstituted C<sub>2-10</sub>-alkenyl, up to per-halosubstituted C<sub>3-10</sub>-cycloalkyl, up to per-halosubstituted C<sub>6</sub>-C<sub>14</sub> aryl and up to per-halosubstituted C<sub>3</sub>-C<sub>13</sub> heteroaryl.

The bridging group M is preferably -O-, -S-, -N(R<sup>5</sup>)-, -(CH<sub>2</sub>)<sub>m</sub>-, -C(O)-, -CH(OH)-, -NR<sup>5</sup>C(O)NR<sup>5</sup>R<sup>5'</sup>-, -NR<sup>5</sup>C(O)-, -C(O)NR<sup>5</sup>-, -(CH<sub>2</sub>)<sub>m</sub>O-, -(CH<sub>2</sub>)<sub>m</sub>S-, -(CH<sub>2</sub>)<sub>m</sub>N(R<sup>5</sup>)-, -O(CH<sub>2</sub>)<sub>m</sub>-, -CHX<sup>a</sup>, -CX<sup>a</sup><sub>2</sub>-, -S-(CH<sub>2</sub>)<sub>m</sub>- and -N(R<sup>5</sup>)(CH<sub>2</sub>)<sub>m</sub>-, where m = 1-3, and X<sup>a</sup> is halogen.

The moiety L is preferably a 5-10 ~~or 6~~ member aromatic structure containing 0-2 members of the group consisting of nitrogen, oxygen and sulfur which is unsubstituted or substituted by halogen up to per-halosubstitution and optionally substituted by  $Z_{n1}$ , wherein  $n1$  is 0 to 3.

Each Z substituent is preferably independently selected from the group consisting of  $-\text{CN}$ ,  $-\text{CO}_2\text{R}^5$ ,  $-\text{C}(\text{O})\text{NR}^5\text{R}^{5'}$ ,  $-\text{C}(\text{O})-\text{NR}^5$ ,  $-\text{NO}_2$ ,  $-\text{OR}^5$ ,  $-\text{SR}^5$ ,  $-\text{NR}^5\text{R}^{5'}$ ,  $-\text{NR}^5\text{C}(\text{O})\text{OR}^{5'}$ ,  $-\text{C}(\text{O})\text{R}^5$ ,  $-\text{NR}^5\text{C}(\text{O})\text{R}^{5'}$ ,  $\text{C}_1\text{-C}_{10}$  alkyl,  $\text{C}_3\text{-C}_{10}$  cycloalkyl,  $\text{C}_6\text{-C}_{14}$  aryl,  $\text{C}_3\text{-C}_{13}$  heteroaryl,  $\text{C}_7\text{-C}_{24}$  alkaryl,  $\text{C}_4\text{-C}_{23}$  alkheteroaryl, substituted  $\text{C}_1\text{-C}_{10}$  alkyl, substituted  $\text{C}_3\text{-C}_{10}$  cycloalkyl, substituted  $\text{C}_7\text{-C}_{24}$  alkaryl and substituted  $\text{C}_4\text{-C}_{23}$  alkheteroaryl. If Z is a substituted group, it is substituted by one or more substituents independently selected from the group consisting of  $-\text{CN}$ ,  $-\text{CO}_2\text{R}^5$ ,  $-\text{C}(\text{O})\text{NR}^5\text{R}^{5'}$ ,  $-\text{OR}^5$ ,  $-\text{SR}^5$ ,  $-\text{NO}_2$ ,  $-\text{NR}^5\text{R}^{5'}$ ,  $-\text{NR}^5\text{C}(\text{O})\text{R}^{5'}$  and  $-\text{NR}^5\text{C}(\text{O})\text{OR}^{5'}$ .--

Please amend the fourth paragraph on page 7 as follows:

--Each V is preferably independently selected from the group consisting of  $-\text{CN}$ ,  $-\text{OC}(\text{O})\text{NR}^5\text{R}^{5'}$ ,  $-\text{CO}_2\text{R}^5$ ,  $-\text{C}(\text{O})\text{NR}^5\text{R}^{5'}$ ,  $-\text{OR}^5$ ,  $-\text{SR}^5$ ,  $-\text{NR}^5\text{R}^{5'}$ ,  $-\text{C}(\text{O})\text{R}^5$ ,  $-\text{NR}^5\text{C}(\text{O})\text{OR}^{5'}$ ,  $-\text{SO}_2\text{R}^5$ ,  $-\text{SOR}^5$ ,  $-\text{NR}^5\text{C}(\text{O})\text{R}^{5'}$ ,  $-\text{NO}_2$ ,  $\text{C}_1\text{-C}_{10}$  alkyl,  $\text{C}_3\text{-C}_{10}$  cycloalkyl,  $\text{C}_6\text{-C}_{14}$  aryl,  $\text{C}_3\text{-C}_{13}$  heteroaryl,  $\text{C}_7\text{-C}_{24}$  alkaryl,  $\text{C}_4\text{-C}_{24}$  alkheteroaryl, substituted  $\text{C}_1\text{-C}_{10}$  alkyl, substituted  $\text{C}_3\text{-C}_{10}$  cycloalkyl, substituted  $\text{C}_6\text{-C}_{14}$  aryl, substituted  $\text{C}_3\text{-C}_{13}$  heteroaryl, substituted  $\text{C}_7\text{-C}_{24}$  alkaryl and substituted  $\text{C}_4\text{-C}_{24}$  alkheteroaryl.--

Please amend the second paragraph on page 8 as follows:

-- $\text{R}^2$  is preferably substituted or unsubstituted phenyl or pyridinyl, where the substituents for  $\text{R}^2$  are selected from the group consisting of halogen, up to per-halosubstitution and  $\text{V}_n^1$ , wherein  $n = 0\text{-}3$ . Each  $\text{V}^1$  is preferably independently selected from the group consisting of substituted and unsubstituted  $\text{C}_1\text{-C}_6$  alkyl,  $\text{C}_3\text{-C}_{10}$  cycloalkyl,  $\text{C}_6\text{-C}_{10}$  aryl,  $-\text{NO}_2$ ,  $-\text{NH}_2$ ,  $-\text{C}(\text{O})\text{-C}_{1-6}$  alkyl,  $-\text{C}(\text{O})\text{N-}$

(C<sub>1-6</sub> alkyl)<sub>2</sub>, -C(O)NH-C<sub>1-6</sub> alkyl, -O-C<sub>1-6</sub> alkyl, -NHC(O)H, -NHC(O)OH, -N(C<sub>1-6</sub> alkyl)C(O)-C<sub>1-6</sub> alkyl, -N-(C<sub>1-6</sub> alkyl)C(O)-C<sub>1-6</sub> alkyl, -NHC(O)-C<sub>1-6</sub> alkyl, -OC(O)NH-C<sub>6-14</sub> aryl, -NHC(O)O-C<sub>1-6</sub> alkyl, -S(O)-C<sub>1-6</sub> alkyl and -SO<sub>2</sub>-C<sub>1-6</sub> alkyl. Where V<sup>1</sup> is a substituted group, it is preferably substituted by one or more halogen, up to per-halosubstitution.--

Please amend the fourth paragraph on page 8 as follows:

-- W is preferably selected from the group consisting of -NO<sub>2</sub>, -C<sub>1-3</sub> alkyl, -NH(O)CH<sub>3</sub>, -CF<sub>3</sub>, -OCH<sub>3</sub>, -F, -Cl, -NH<sub>2</sub>, -OC(O)NH-up to per-halo substituted phenyl, -SO<sub>2</sub>CH<sub>3</sub>, pyridinyl, phenyl, up to per-halosubstituted phenyl and C<sub>1</sub>-C<sub>6</sub> alkyl substituted phenyl.--

Please amend the second and third paragraphs on page 9 as follows:

--The present invention is also directed to pharmaceutically acceptable salts of formula

I. Suitable pharmaceutically acceptable salts are well known to those skilled in the art and include basic salts of inorganic and organic acids, such as hydrochloric acid, hydrobromic acid, sulphuric acid, phosphoric acid, methanesulphonic acid, sulphonic acid, acetic acid, trifluoroacetic acid, malic acid, tartaric acid, citric acid, lactic acid, oxalic acid, succinic acid, fumaric acid, maleic acid, benzoic acid, salicylic acid, phenylacetic acid, and mandelic acid. In addition, pharmaceutically acceptable salts ~~of formula I may be formed with a pharmaceutically acceptable cation, for instance, in the case when a substituent group comprises a carboxy moiety. Suitable pharmaceutically suitable cations are well known to those skilled in the art, and include alkaline, alkaline earth, ammonium, substituted ammonium, and quaternary ammonium cations.~~

include acid salts of inorganic bases, such as salts containing alkaline cations (e.g., Li<sup>+</sup> Na<sup>+</sup> or K<sup>+</sup>), alkaline earth cations (e.g., Mg<sup>+2</sup>, Ca<sup>+2</sup> or Ba<sup>+2</sup>), the ammonium cation, as well as acid salts of organic bases, including aliphatic and aromatic substituted ammonium, and quaternary ammonium cations such as those arising from protonation or peralkylation of triethylamine, *N,N*-diethylamine, *N,N*-dicyclohexylamine, pyridine, *N,N*-dimethylaminopyridine (DMAP), 1,4-diazabicyclo[2.2.2]octane (DABCO), 1,5-diazabicyclo[4.3.0]non-5-ene (DBN) and 1,8-

diazabicyclo[5.4.0]undec-7-ene (DBU).

The compounds of Formula I ~~are either known in the art or~~ may be prepared by use of known chemical reactions and procedures. Nevertheless, the following general preparative methods are presented to aid one of skill in the art in synthesizing the inhibitors, with more detailed examples being presented in the experimental section describing the working examples. --

Please amend the second paragraph on page 14 as follows:

-- The compounds may be administered orally, topically, parenterally, by inhalation or spray, vaginally, sublingually, or rectally in dosage unit formulations. The term 'administration by injection' includes intravenous, intramuscular, subcutaneous and parenteral injections, as well as use of infusion techniques. Dermal administration may include topical application or transdermal administration. One or more compounds may be present in association with one or more non-toxic pharmaceutically acceptable carriers and if desired other active ingredients.--

Please amend the third paragraph on page 16 as follows:

The compounds may also be administered in the form of suppositories for rectal or vaginal administration of the drug. These compositions can be prepared by mixing the drug with a suitable non-irritating excipient which is solid at ordinary temperatures but liquid at the rectal or vaginal temperature and will therefore melt in the rectum or vagina to release the drug. Such materials include cocoa butter and polyethylene glycols.--

Please insert the following paragraphs after the third paragraph on page 16:

Compounds of the invention may also be administrated transdermally using methods known to those skilled in the art (see, for example: Chien; "Transdermal Controlled Systemic Medications"; Marcel Dekker, Inc.; 1987. Lipp et al. WO94/04157 3Mar94). For example, a solution or suspension of a compound of Formula I in a suitable volatile solvent optionally containing penetration enhancing agents can be combined with additional additives known to those skilled in the art, such as matrix materials and bacteriocides. After sterilization, the

resulting mixture can be formulated following known procedures into dosage forms. In addition, on treatment with emulsifying agents and water, a solution or suspension of a compound of Formula I may be formulated into a lotion or salve.

Suitable solvents for processing transdermal delivery systems are known to those skilled in the art, and include lower alcohols such as ethanol or isopropyl alcohol, lower ketones such as acetone, lower carboxylic acid esters such as ethyl acetate, polar ethers such as tetrahydrofuran, lower hydrocarbons such as hexane, cyclohexane or benzene, or halogenated hydrocarbons such as dichloromethane, chloroform, trichlorotrifluoroethane, or trichlorofluoroethane. Suitable solvents may also include mixtures of one or more materials selected from lower alcohols, lower ketones, lower carboxylic acid esters, polar ethers, lower hydrocarbons, halogenated hydrocarbons.

Suitable penetration enhancing materials for transdermal delivery system are known to those skilled in the art, and include, for example, monohydroxy or polyhydroxy alcohols such as ethanol, propylene glycol or benzyl alcohol, saturated or unsaturated C<sub>8</sub>–C<sub>18</sub> fatty alcohols such as lauryl alcohol or cetyl alcohol, saturated or unsaturated C<sub>8</sub>–C<sub>18</sub> fatty acids such as stearic acid, saturated or unsaturated fatty esters with up to 24 carbons such as methyl, ethyl, propyl, isopropyl, n-butyl, sec-butyl isobutyl tertbutyl or monoglycerin esters of acetic acid, capronic acid, lauric acid, myristinic acid, stearic acid, or palmitic acid, or diesters of saturated or unsaturated dicarboxylic acids with a total of up to 24 carbons such as diisopropyl adipate, diisobutyl adipate, diisopropyl sebacate, diisopropyl maleate, or diisopropyl fumarate. Additional penetration enhancing materials include phosphatidyl derivatives such as lecithin or cephalin, terpenes, amides, ketones, ureas and their derivatives, and ethers such as dimethyl isosorbide and diethyleneglycol monoethyl ether. Suitable penetration enhancing formulations may also include mixtures of one or more materials selected from monohydroxy or polyhydroxy alcohols, saturated or unsaturated C<sub>8</sub>–C<sub>18</sub> fatty alcohols, saturated or unsaturated C<sub>8</sub>–C<sub>18</sub> fatty acids, saturated or unsaturated fatty esters with up to 24 carbons, diesters of saturated or unsaturated dicarboxylic acids with a total of up to 24 carbons, phosphatidyl derivatives,

terpenes, amides, ketones, ureas and their derivatives, and ethers.

Suitable binding materials for transdermal delivery systems are known to those skilled in the art and include polyacrylates, silicones, polyurethanes, block polymers, styrenebutadiene copolymers, and natural and synthetic rubbers. Cellulose ethers, derivatized polyethylenes, and silicates may also be used as matrix components. Additional additives, such as viscous resins or oils may be added to increase the viscosity of the matrix.

Please amend the fourth paragraph on page 16 as follows:

For all regimens of use disclosed herein for compounds of Formula I, the daily oral dosage regimen will preferably be from 0.01 to 200 mg/Kg of total body weight. The daily dosage for administration by injection, including intravenous, intramuscular, subcutaneous and parenteral injections, and use of infusion techniques will preferably be from 0.01 to 200 mg/Kg of total body weight. The daily vaginal dosage regimen will preferably be from 0.01 to 200 mg/Kg of total body weight. The daily rectal dosage regime will preferably be from 0.01 to 200 mg/Kg of total body weight. The daily topical dosage regime will preferably be from 0.1 to 200 mg administered between one to four times daily. The transdermal concentration will preferably be that required to maintain a daily dose of from 0.01 to 200 mg/Kg. The daily inhalation dosage regime will preferably be from 0.01 to 10 mg/Kg of total body weight.--

Please amend the first paragraph on page 17 as follows:

--in the art that the specific dose level for any given patient will depend upon a variety of factors, including, the ~~specific~~ activity of the specific compound administered, the age of the patient, the body weight of the patient, the general health of the patient, ~~sex~~ the gender of the patient, the diet of the patient, time of administration, and route of administration, rate of excretion, drug combinations, and the severity of the condition undergoing therapy. It will be further appreciated by one skilled in the art that the optimal course of treatment, i.e., the mode of treatment and the daily number of doses of a compound of Formula I or a pharmaceutically acceptable salt thereof given for a defined number of days, can be ascertained by those skilled in the art using

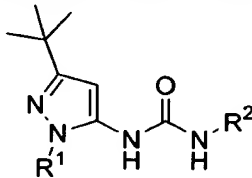
conventional treatment tests.

Please amend the third paragraph on page 17 as follows:

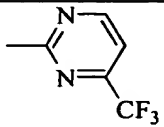
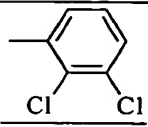
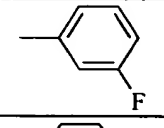
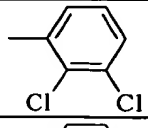
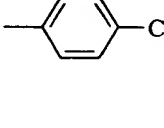
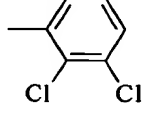
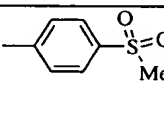
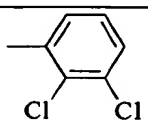
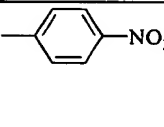
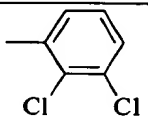
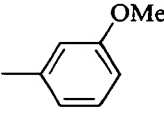
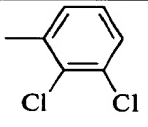
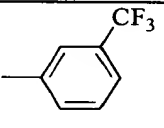
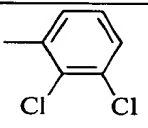
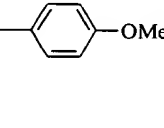
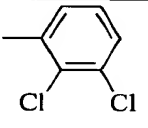
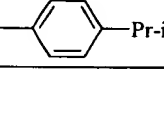
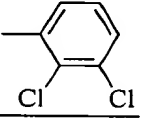
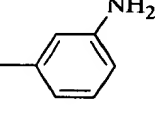
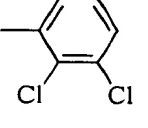
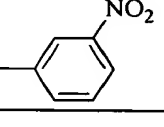
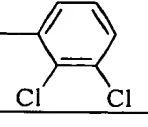
--The entire disclosure of all applications, patents and publications cited above and below are hereby incorporated by reference, including provisional application serial number 60/135,502, filed on December 22, 1997 as SN 08/996,181 and converted on December 22, 1998.

Please amend Tables 1 and 2 on pages 30, 31 , 32 and 33 as follows

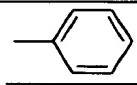
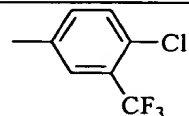
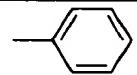
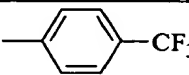
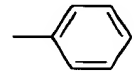
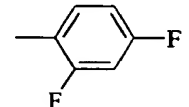
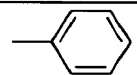
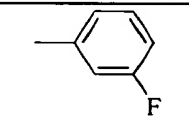
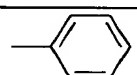
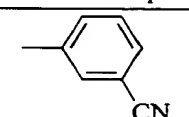
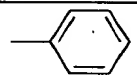
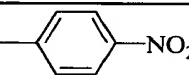
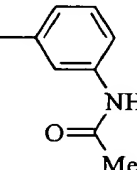
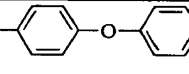
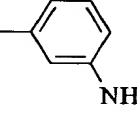
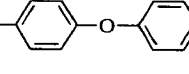
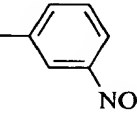
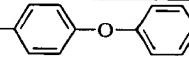
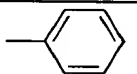
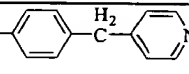
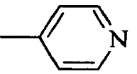
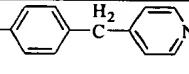
**Table 1. 2-Substituted-5-*tert*-butylpyrazolyl Ureas**

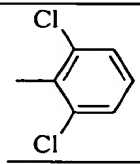
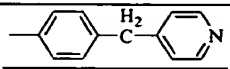
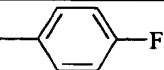
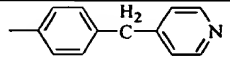
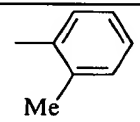
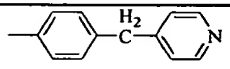
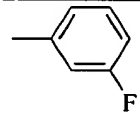
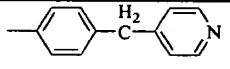
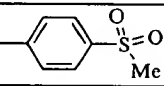
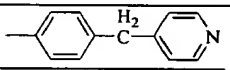
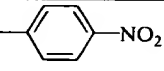
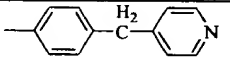
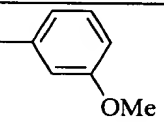
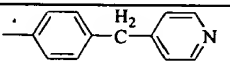
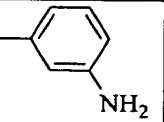
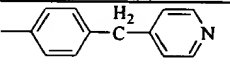


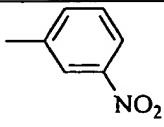
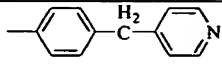
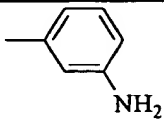
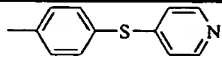
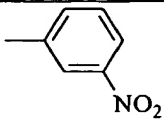
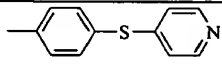
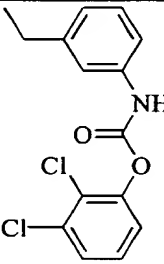
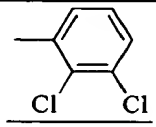
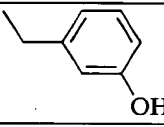
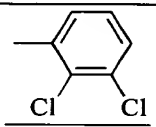
Entry	R <sup>1</sup>	R <sup>2</sup>	mp (°C)	TLC R <sub>f</sub>	Solvent System	Mass Spec. [Source]	Synth. Method
1				0.42	20% EtOAc/ 80% hexane	403 (M+H)+ [FAB]	A1, C1a
2				0.50	67% EtOAc/ 33% hexane	418 (M+H)+ [FAB]	A1, C1a, D3
3				0.27	20% EtOAc/ 80% hexane	417 (M+H)+ [FAB]	A1, C1a
<u>4</u>				<u>0.47</u>	<u>20% EtOAc/ 80% hexane</u>	<u>404 (M+H)+ [FAB]</u>	<u>A1, C1a</u>

<u>5</u>				<u>0.30</u>	<u>33% EtOAc/</u> <u>67%</u> <u>hexane</u>	<u>473</u> <u>(M+H)+</u> <u>[FAB]</u>	<u>A1,</u> <u>C1a</u>
<del>[4]</del> <u>6</u>				0.27	100% EtOAc	421 (M+H)+ [FAB]	A1, C1a
<del>[5]</del> <u>7</u>				0.50	20% EtOAc/ 80% hexane	437 (M+H)+ [FAB]	A1, C1a
<del>[6]</del> <u>8</u>				0.60	50% EtOAc/ 50% hexane	481 (M+H)+ [FAB]	A1, C1a
<del>[7]</del> <u>9</u>				0.37	20% EtOAc/ 80% hexane	448 (M+H)+ [FAB]	A1, C1a
<del>[8]</del> <u>10</u>				0.35	20% EtOAc/ 80% hexane	433 (M+H)+ [FAB]	A1, C1a
<del>[9]</del> <u>11</u>				0.40	20% EtOAc/ 80% hexane	471 (M+H)+ [FAB]	A1, C1a
<del>[10]</del> <u>12</u>				0.22	20% EtOAc/ 80% hexane	433 (M+H)+ [FAB]	A1, C1a
<u>13</u>				<u>0.51</u>	<u>20%</u> <u>EtOAc/</u> <u>80%</u> <u>hexane</u>	<u>445</u> <u>(M+H)+</u> <u>[FAB]</u>	<u>A1,</u> <u>C1a</u>
<del>[11]</del> <u>14</u>				0.39	50% EtOAc/ 50% hexane	418 (M+H)+ [FAB]	A1, C1a, D3
<del>[12]</del> <u>15</u>				0.31	30% EtOAc/ 70%	448 (M+H)+ [FAB]	A1, C1a



					hexane		
<u>16</u>			<u>195</u> - <u>200</u>			<u>437</u> (M+H)+ [FAB]	A1, C1a
[13] <u>17</u>			97- 100			403 (M+H)+ [FAB]	A1, C1a
[14] <u>18</u>			84- 85			371 (M+H)+ [FAB]	A1, C1a
[15] <u>19</u>			156 - 159			353 (M+H)+ [FAB]	A1, C1a
[16] <u>20</u>			168 - 169			360 (M+H)+ [FAB]	A1, C1a
[17] <u>21</u>			131 - 135			380 (M+H)+ [CI]	A1, C1a
[18] <u>22</u>				0.31	70% EtOAc/ 30% hexane	484 (M+H)+ [FAB]	A1, C1a, D3, D4
[19] <u>23</u>				0.14	50% EtOAc/ 50% hexane	442 (M+H)+ [FAB]	A1, C1a, D3
[20] <u>24</u>				0.19	30% EtOAc/ 70% hexane	472 (M+H)+ [FAB]	A1, C1a
[21] <u>25</u>				0.56	60% acetone / 40% CH2Cl 2	426 (M+H)+ [FAB]	A1, C2
[22] <u>26</u>				0.34	10% MeOH/ 90%	427 (M+H)+ [FAB]	A1, C2

					CH <sub>2</sub> Cl 2		
<u>27</u>				<u>0.44</u>	40% acetone / 60% CH <sub>2</sub> Cl 2	494 (M+H)+ [FAB]	A1, C2
[23] <u>28</u>				0.44	40% acetone / 60% CH <sub>2</sub> Cl 2	444 (M+H)+ [FAB]	A1, C2
[24] <u>29</u>				0.46	40% acetone / 60% CH <sub>2</sub> Cl 2	440 (M+H)+ [FAB]	A1, C2
[25] <u>30</u>				0.48	40% acetone / 60% CH <sub>2</sub> Cl 2	444 (M+H)+ [FAB]	A1, C2
<u>31</u>				<u>0.34</u>	40% acetone / 60% CH <sub>2</sub> Cl 2	504 (M+H)+	A1, C2
[26] <u>32</u>				0.47	40% acetone / 60% CH <sub>2</sub> Cl 2	471 (M+H)+ [FAB]	A1, C2
[27] <u>33</u>				0.51	60% acetone / 40% CH <sub>2</sub> Cl 2	456 (M+H)+ [FAB]	A1, C2
[28] <u>34</u>				0.50	50% acetone / 50% CH <sub>2</sub> Cl 2	441 (M+H)+ [FAB]	A1, C2, D3

<u>[29]</u> <u>35</u>				0.43	30% acetone / 70% CH <sub>2</sub> Cl 2	471 (M+H) <sup>+</sup> [FAB]	A1, C2
<u>[30]</u> <u>36</u>				0.50	50% acetone / 50% CH <sub>2</sub> Cl 2	459 (M+H) <sup>+</sup> [FAB]	A1, C2, D3
<u>[31]</u> <u>37</u>				0.47	30% acetone / 70% CH <sub>2</sub> Cl 2	489 (M+H) <sup>+</sup> [FAB]	A1, C2
<u>38</u>				<u>0.47</u>	<u>50%</u> <u>EtOAc/</u> <u>50%</u> <u>hexane</u>	<u>620</u> <u>(M+H)<sup>+</sup></u> <u>[FAB]</u>	<u>A1, C2</u>
<u>39</u>				<u>0.34</u>	<u>50%</u> <u>EtOAc/</u> <u>50%</u> <u>hexane</u>	<u>433</u> <u>(M+H)<sup>+</sup></u> <u>[FAB]</u>	<u>A1, C2</u>

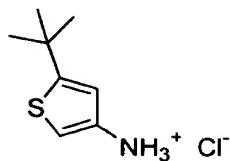
**Table 2. Additional Ureas**

Entry	R <sup>2</sup>	mp (°C)	TLC R <sub>f</sub>	Solvent System	Mass Spec.	Synth. Method
<del>[32]</del> 40		195-198	0.47	60% EtOAc/ 40% hexane	404 (M+H)+ [FAB]	A2, C1b
41		<u>171-173</u>	<u>0.25</u>	<u>5% EtOAc/</u> <u>95% hexane</u>	<u>419</u> <u>(M+H)+</u> <u>[FAB]</u>	<u>A3,</u> <u>C1c,</u> <u>D1, D2</u>

Please amend page 22, second paragraph as below:

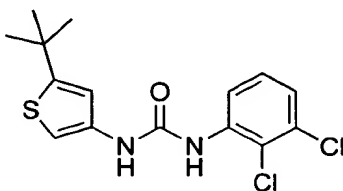
**Step 2. 3-(*tert*-Butoxycarbonylamino)-5-*tert*-butyl-2-thiophenecarboxylic Acid:** To a solution of methyl 3-(*tert*-butoxycarbonylamino)-5-*tert*-butyl-2-thiophenecarboxylate (90.0 g, 0.287 mol) in THF (630 mL) and MeOH (630 mL) was added a solution of NaOH (42.5 g, 1.06 mL) in water (630 mL). The resulting mixture was heated at 60 °C for 2 h, concentrated to approximately 700 mL under reduced pressure, and cooled to 0 °C. The pH was adjusted to approximately 7 with a 1.0 N HCl solution (approximately 1 L) while maintaining the internal temperature at approximately 0 °C. The resulting mixture was treated with EtOAc (4 L). The pH was adjusted to approximately 2 with a 1.0 N HCl solution (500 mL). The organic phase was washed with a saturated NaCl solution (4 x 1.5 L), dried (Na<sub>2</sub>SO<sub>4</sub>), and concentrated to approximately 200 mL under reduced pressure. The residue was treated with hexane (1 L) to form a light pink solid (41.6 g). Resubmission of the mother liquor to the concentration-precipitation protocol afforded additional product (38.4 g, 93% total yield): <sup>1</sup>H-NMR (CDCl<sub>3</sub>) δ

1.94 (s, 9H), 1.54 (s, 9H), 7.73 (s, 1H), 9.19 (br s, 1H); FAB-MS  $m/z$  (rel abundance) 300 ((M+H)<sup>+</sup>, 50%).



Please amend page 25, second paragraph as below:

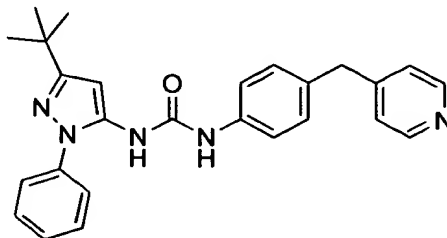
**C1c. Reaction of a Heterocyclic Amine with an Isocyanate**



***N*-(5-*tert*-Butyl-3-thienyl)-*N'*-(2,3-dichlorophenyl)urea:** Pyridine (0.163 mL, 2.02 mmol) was added to a slurry of 5-*tert*-butylthiophen-2-ylammonium chloride (Method A4c; 0.30 g, 1.56 mmol) and 2,3-dichlorophenyl isocyanate (0.32 mL, 2.02 mmol) in CH<sub>2</sub>Cl<sub>2</sub> (10 mL) to clarify the mixture and the resulting solution was stirred at room temp. overnight. The reaction mixture was then concentrated under reduced pressure and the residue was separated between EtOAc (15 mL) and water (15 mL). The organic layer was sequentially washed with a saturated NaHCO<sub>3</sub> solution (15 mL), a 1N HCl solution (15 mL) and a saturated NaCl solution (15 mL), dried (Na<sub>2</sub>SO<sub>4</sub>), and concentrated under reduced pressure. A portion of the residue was treated by preparative HPLC (C-18 column; 60% acetonitrile/40% water/0.05% TFA) to give the desired urea (0.180 g, 34%): mp 169-170 °C; TLC (20% EtOAc/80% hexane)  $R_f$  0.57; <sup>1</sup>H-NMR (DMSO-*d*<sub>6</sub>) δ 1.31 (s, 9H), 6.79 (s, 1H), 7.03 (s, 1H), 7.24-7.33 (m, 2H), 8.16 (dd,  $J$ =1.84, 7.72 Hz, 1H), 8.35 (s, 1H), 9.60 (s, 1H); <sup>13</sup>C-NMR (DMSO-*d*<sub>6</sub>) δ 31.9 (3C), 34.0, 103.4, 116.1, 119.3, 120.0, 123.4, 128.1, 131.6, 135.6, 138.1, 151.7, 155.2; FAB-MS  $m/z$  (rel abundance) 343 ((M+H)<sup>+</sup>, 83%), 345 ((M+H+2)<sup>+</sup>, 56%), 347 ((M+H+4)<sup>+</sup>, 12%).

Please amend page 26, second paragraph as indicated below:

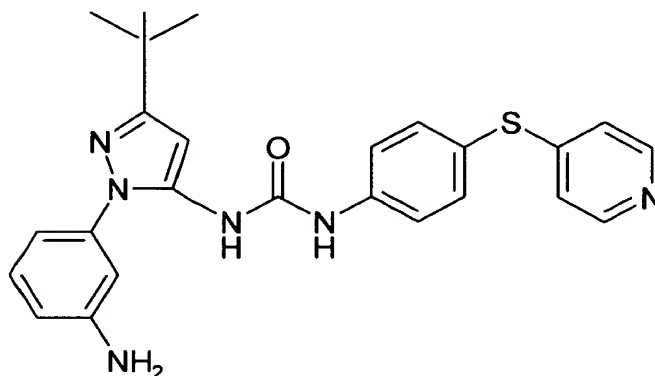
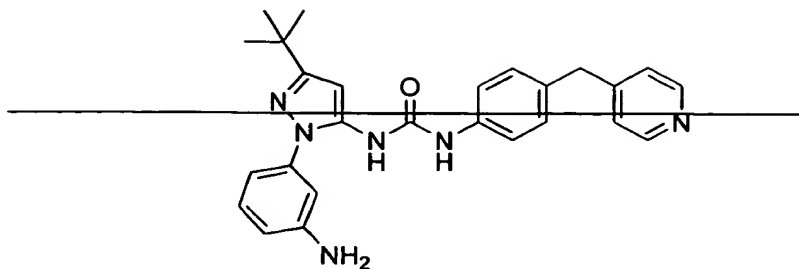
**C2. Reaction of Substituted Aniline with *N,N'*-Carbonyldiimidazole Followed by Reaction with a Heterocyclic Amine**



***N*-(1-Phenyl-3-*tert*-butyl-5-pyrazolyl)-*N'*-(4-(4-pyridinylmethyl)phenyl)urea:** A solution of 4-(4-pyridinylmethyl)aniline (0.25 g, 1.38 mmol) and *N,N'*-carbonyldiimidazole (0.23 g, 1.42 mmol) in CH<sub>2</sub>Cl<sub>2</sub> (11 mL) at room temp. was stirred for 2 h, then treated with 5-amino-1-phenyl-3-*tert*-butyl-5-pyrazole (0.30 g, 1.38 mmol) and the resulting mixture was stirred at 50 °C overnight. The reaction mixture was diluted with EtOAc (25 mL), then sequentially washed with water (30 mL) and a saturated NaCl solution (30 mL), dried (MgSO<sub>4</sub>), and concentrated under reduced pressure. The residue was purified by column chromatography (gradient from 100% CH<sub>2</sub>Cl<sub>2</sub> to 30% acetone/70% CH<sub>2</sub>Cl<sub>2</sub>) and the resulting material was recrystallized (EtOAc/Et<sub>2</sub>O) to give the desired product complexed with 0.25 equiv H<sub>2</sub>O (0.30 g): TLC (60% acetone/40% CH<sub>2</sub>Cl<sub>2</sub>) R<sub>f</sub> 0.56; <sup>1</sup>H-NMR (DMSO-*d*<sub>6</sub>) δ 1.25 (s, 9H); 3.86 (s, 2H), 6.34 (s, 1H), 7.11 (d, *J*=8.82 Hz, 2H), 7.19 (dm, *J*=6.25 Hz, 2H), 7.31 (d, *J*=1.84 Hz, 2H), 7.35-7.51 (m, 5 H), 8.34 (s, 1H), 8.42 (dm, *J*=5.98 Hz, 2H), 8.95 (s, 1H); FAB-MS *m/z* (rel abundance) 426 ((*M*+H)<sup>+</sup>, 100%).

Please amend page 28, second paragraph as indicated below:

**D3. General Methods of Reduction of Nitro-Containing Aryl Ureas**



***N*-(1-(3-Aminophenyl)-3-*tert*-butyl-5-pyrazolyl)-*N'*-(4-(4-pyridinylthio)phenyl)urea:** A solution of *N*-(1-(3-nitrophenyl)-3-*tert*-butyl-5-pyrazolyl)-*N'*-(4-(4-pyridinylthio)phenyl)urea (Prepared in methods analogous to those described in A1 and C1a; 0.310 g, 0.635 mmol) in acetic acid (20 mL) was placed under an atmosphere of Ar using a vacuum-degassed and argon-purge protocol. To this was added water (0.2 mL) followed by iron powder (325 mesh; 0.354 g, 6.35 mmol). The reaction mixture was stirred vigorously under argon at room temp. for 18 h, at which time TLC indicated the absence of starting material. The reaction mixture was filtered and the solids were washed copiously with water (300 mL). The orange solution was then brought to pH 4.5 by addition of NaOH pellets (a white precipitate forms). The resulting suspension was extracted with Et<sub>2</sub>O (3 x 250 mL), and the combined organic layers were washed with a saturated NaHCO<sub>3</sub> solution (2 x 300 mL) until foaming ceased. The resulting solution was dried (MgSO<sub>4</sub>) and concentrated under reduced pressure. The resulting white solid was purified by column chromatography (gradient from 30% acetone/70% CH<sub>2</sub>Cl<sub>2</sub> to 50% acetone/50% CH<sub>2</sub>Cl<sub>2</sub>) to give the product as a white solid (0.165 g, 57%): TLC (50% acetone/50% CH<sub>2</sub>Cl<sub>2</sub>) R<sub>f</sub> 0.50; <sup>1</sup>H NMR

(DMSO- $d_6$ )  $\delta$  1.24 (s, 9H), 5.40 (br s, 2H), 6.34 (s, 1H), 6.57 (d,  $J=8$  Hz, 2H), 6.67 (s, 1H), 6.94 (d,  $J=6$  Hz, 2H), 7.12 (app t,  $J=8$  Hz, 1H), 7.47 (d,  $J=9$  Hz, 2H), 7.57 (d,  $J=9$  Hz, 2H), 8.31 (d,  $J=6$  Hz, 2H), 8.43 (s, 1H), 9.39 (s, 1H); FAB-MS  $m/z$  459 ( $(M+H)^+$ ).